

Curriculum Vitae (C.V)

Name: Soumendra Kumar Dey

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Career Objective:

- *To pursue a challenging teaching and research career in mathematics, particularly applied mathematics and atmospheric turbulence, where I can contribute through academic research, knowledge transfer, mentoring, and active involvement in institutional development.*

Academic Qualifications:

- *Ph.D. In Applied Mathematics (Atmospheric Turbulence) – Pursuing since 2024, Sona Devi University, Ghatshila, East Singhbhum, Jharkhand, India.*
Under Supervision: Prof. (Dr.) Koushik Ghosh, UIT, Burdwan University, Burdwan, W.B, India.
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- *M.Sc. in Mathematics (With 57% marks, 2016–2018), Burdwan University, Burdwan, W.B, India.*
- *B.Ed. (With 73% marks ,2014–2015 Session), Burdwan University, Burdwan, India.*
- *B.Sc. (In Mathematics, 50% marks ,2009), Suri Vidya Sagar College, Suri, Birbhum, West-Bengal, India.*

Certifications and Specialized Trainings:

NPTEL Online Courses (2020–2021):

- *A Basic Course in Number Theory (IIT Bombay)*
- *Calculus of One Real Variable (IIT Kanpur)*
- *Calculus of Several Real Variables (IIT Kanpur)*

***Also enrol for 2026-2028 session : Introduction to Abstract and Linear Algebra (IIT Kharagpur) ,Group Theory (CMI ,Chennai), Matrix Analysis with Applications (IIT Roorkee), Basic Linear Algebra (IIT Bombay), Linear Algebra (KSOM), Basic Calculus-I & II (IIT Madras & IIT Guwahati), Advanced Calculus for Engineers (IIT Kharagpur), Metric Space (Aligarh Muslim University ,Delhi), Introductory Course on Real Analysis (IIT Kharagpur), Real Analysis-I & II (IIT Palakkad), Complex Analysis (KSOM) , Functional Analysis (Burdwan University & IIMSC , Chennai), Graph Theory (IISER Pune), Differential Equations for Engineers (IIT Madras), Partial Differential Equations (IIT Kanpur & Jadavpur University), Engineering Mathematics- I & II (IIT Kharagpur), Advanced Engineering Mathematics (IIT Kharagpur & IIT Roorkee), Engineering Mechanics (IIT Madras), Classical Mechanics (IIT BHU) , Thermal Physics (IIT Kharagpur), Introduction to Fluid Mechanics (IIT Kharagpur),Advanced Fluid Mechanics (IIT Kharagpur), Computational Fluid Dynamics (IIT Madras), Advanced Computational Fluid Dynamics (IIT Kharagpur), Turbulence and Turbulence Modelling (IIT Madras).*

Workshops, Symposia, seminar and Conferences:

- Two-Day International Conference “**Recent Trends in Basic and Applied Sciences**” at Bhairab Ganguly College and Dum Dum Motijheel college – Paper Presentation (“**Application of Science**”) (Online, 6–7 July 2020)
- Five Days National Level Online Workshop on “**Modelling, Complex Dynamics and Stochastic Differential Equations**”, Calcutta Mathematical Society (21–25 Nov. 2020)
- Virtual workshop on “**DIFFERENTIAL EQUATIONS AND THEIR APPLICATIONS**” NOVEMBER 27-28, 2020 Organized by Indian Institute of Technology, Mandi
- Indian Women and Mathematics (IWM): Regional Workshop on “**Research and Opportunities**”, IIT Patna (4–5 Dec. 2021, Online)
- National Symposium on “**Mathematics and Applications**”, IIT Madras (22 Dec. 2021)
- **Topic Name: “Research Methodology**”, Sona Devi University – Paper Presentation (2024)
- **Topic Name: “TIME-DEPENDENT SELF-SIMILARITY IN ATMOSPHERIC TURBULENCE ACROSS DIURNAL AND TRANSITIONAL REGIMES**” ON “Contemporary Research in Theoretical and Applicable Mathematics” (CRTAM-2025), Bhawanipur Educational Society (College), Kolkata in collaboration with Calcutta Mathematical Society.
- **Topic Name: “MOIST CONVECTIVE SELF- SIMILARITY: SCALING DYNAMICS OF ATMOSPHERIC TURBULENCE IN CUMULONIMBUS CLOUDS** “At PROF. M.R. GUPTA MEMORIAL NATIONAL SEMINAR ON NONLINEAR AND COMPLEX PHENOMENA.
Organized by Centre for Plasma Studies (CPS), Jadavpur University, Kolkata in collaboration with Advanced Centre for Nonlinear and Complex Phenomena (ACNCP)

Professional Development Courses:

- STCIDS-2025: “**Data Science and Machine Learning**”, Calcutta Mathematical Society (Online, June. 2025)
- **Professional Experience:**
- Private Mathematics Tutor (2019–2023): Provided coaching for undergraduates and school-level mathematics. Specialized in problem-solving, advanced calculus, and mathematical reasoning.

Research Interests:

- Atmospheric turbulence and its scaling behaviour
- Fluid dynamics and applied mathematics
- Machine learning applications in turbulence modelling
- Differential equations and dynamical systems

Skills:

- Programming and Computational Knowledge: C programming, Data Structures, Basic Machine learning tools and analysis.
- Core Competencies: Advanced calculus, Mathematical modelling, Turbulence analysis, Differential equations.
- Soft Skills: Strong academic writing, presentation, problem-solving, and mentoring ability.

Hobbies:

- *Self-study and Continuous learning.*
- *Singing Rabindra Sangeet.*

Career Aspiration: *After the completion of my Ph.D., I aim to join an educational institute (general degree college or engineering college) to contribute to teaching, research, and academic development.*
